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The Deputy Director of Central Intelligence

Washington, D.C. 20505

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TO:
Public Affairs Office

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Per your request, a copy of the cleaned
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YOUNG PRESIDENTS' ORGANIZATION - DALLAS CHAPTER
16 FEBRUARY 1988

LOOKING AT STRUCTURAL CHANGE
BY ROBERT M. GATES
DEPUTY DIRECTOR OF CENTRAL INTELLIGENCE

AT CERTAIN POINTS IN HISTORY, ABRUPT CHANGES IN THE DIRECTION OF A NATION, A GROUP OF NATIONS, OR THE WORLD HAVE BEEN SO PROFOUND AS TO NAME AN ERA. ARCHEOLOGISTS SPEAK OF THE "BRONZE AGE" OR THE "IRON AGE." HISTORIANS SPEAK OF THE "AGE OF DISCOVERY" OR THE "INDUSTRIAL REVOLUTION." IN EACH OF THESE CASES, A NEW TECHNOLOGY OR COMPLEX OF TECHNOLOGIES -- MINING, SMELTING, NAVIGATION, THE STEAM ENGINE -- WENT FAR BEYOND SCIENTIFIC OR ECONOMIC EFFECTS TO FORCE CHANGE IN SOCIAL AND POLITICAL ORGANIZATION AND THE RELATIVE POWER OF CLASSES AND NATIONS. FOR EXAMPLE, ACCORDING TO SOME HISTORIANS, THE INVENTION OF THE STIRRUP MADE KNIGHTHOOD -- AND EUROPEAN-STYLE FEUDALISM -- POSSIBLE, THE INVENTION OF FIREARMS MADE IT AN ANACHRONISM.

IN RECENT CENTURIES, THESE "STRUCTURAL CHANGES" HAVE ACCELERATED. TECHNOLOGIES RISE, FLOURISH, DECLINE, AND ARE SUPERSEDED WITHIN A FEW DECADES, AND THE CHANGES FORCED UPON SOCIETIES AND NATIONS ARE EQUALLY RAPID. POLICY DECISIONS MADE

TODAY IN BUSINESS OR GOVERNMENT MAY BE PLAYED OUT UNDER RADICALLY ALTERED CONDITIONS. IN THESE CIRCUMSTANCES, THE INTELLIGENCE COMMUNITY HAS THE TASK OF LOOKING BEYOND THE PRESSING PROBLEMS OF THE DAY TO EXAMINE THE DANGERS AND OPPORTUNITIES OF THE DECADES TO COME -- TO SEE WHERE THE WORLD IS GOING DESPITE AS WELL AS BECAUSE OF THE INTENTIONS OF THE MAJOR PLAYERS.

TODAY, I WOULD LIKE TO SKETCH OUT SOME TRENDS -- STRUCTURAL CHANGES -- THAT APPEAR TO BE UNDER WAY AND ASSESS HOW THEY MAY PLAY OUT. I OUTLINE THESE TRENDS WITH CONSIDERABLE HUMILITY AND SOME TREPIDATION, GIVEN THE BACKGROUND AND UNIQUE TALENTS AND INSIGHTS OF MANY IN THIS ROOM ON THESE ISSUES. I WILL DISCUSS THEM FROM THE VIEWPOINT OF AN INTELLIGENCE OFFICER IN TERMS OF THEIR POLITICAL AND ECONOMIC MEANING.

AT PRESENT I SEE THREE LONG-TERM TRENDS IN THE INTERNATIONAL ECONOMY THAT, TAKEN TOGETHER, CONSTITUTE A MAJOR STRUCTURAL CHANGE. THESE THREE TRENDS ARE: THE LONG-TERM RELATIVE DECLINE IN THE VALUE OF MANY COMMODITIES; THE INTERNATIONALIZATION OF PRODUCTION; AND THE GLOBALIZATION OF FINANCIAL MARKETS. I WOULD LIKE TO TREAT EACH OF THESE IN TURN AND THEN SPECULATE A BIT ABOUT HOW THEY WILL PLAY OUT IN SOCIETY AND INTERNATIONAL POLITICS.

FIRST, THE DECLINE IN THE VALUE OF COMMODITIES. A FEW MONTHS AGO I READ AN ARTICLE IN THE SCIENTIFIC AMERICAN ENTITLED "BEYOND THE ERA OF MATERIALS." ACCORDING TO THIS ARTICLE BY LARSON, ROSS, AND WILLIAMS, THE INDUSTRIAL COUNTRIES "ARE NOW LEAVING THE ERA OF MATERIALS, WHICH SPANNED THE TWO CENTURIES FOLLOWING THE ADVENT OF THE INDUSTRIAL REVOLUTION, AND ARE MOVING INTO A NEW ERA IN WHICH THE LEVEL OF MATERIALS WILL NO LONGER BE AN IMPORTANT INDICATOR OF ECONOMIC PROGRESS." THE AUTHORS GIVE FOUR REASONS FOR THIS:

- THE SUBSTITUTION OF COMMON FOR RARE MATERIALS.
- THE INCREASED EFFICIENCY OF MATERIALS USE.
- THE SATURATION OF MARKETS.
- THE LOW MATERIALS CONTENT OF EVOLVING NEW MARKETS.

THEY BELIEVE THAT MARKET SATURATION IS THE MOST IMPORTANT OF THESE REASONS -- AND THEY ARGUE PERSUASIVELY THAT REPLACING AND MAINTAINING ESTABLISHED NETWORKS OF HOUSING, FACTORIES, AND ROADS CANNOT PROVIDE THE KIND OF LONG-TERM STIMULUS THAT WAS ONCE PROVIDED BY THEIR CREATION.

OUR OWN STUDIES DONE SUPPORT THIS VIEW -- THOUGH PERHAPS GIVING MORE EMPHASIS TO TECHNOLOGICAL CHANGE AND LESS TO MARKET SATURATION. SINCE THE END OF WORLD WAR II, THE PRICES OF EVERYTHING FROM OIL TO URANIUM, FROM COPPER TO BAUXITE, FROM SUGAR TO WHEAT HAVE RISEN LESS RAPIDLY THAN OVERALL INFLATION. WHILE THE VALUE OF SOME COMMODITIES SUCH AS TIN AND ZINC HAS ONLY FALLEN BY ABOUT 10 PERCENT, THE VALUE OF LEAD FELL A FULL 50 PERCENT. IN MINERALS, TECHNOLOGY HAS MAINLY ACTED TO REDUCE DEMAND FOR TRADITIONAL COMMODITIES: IN AGRICULTURE, IT HAS ACTED TO INCREASE THEIR SUPPLY.

CERTAINLY THE TREND WILL NOT BE ONE OF STEADY DECLINE. INDEED, REBOUNDS AND COLLAPSES WILL LIKELY LITTER THE LONGER TERM PATH. NEVERTHELESS, DESPITE THE RECENT BOLSTERING OF MINERALS AND AGRICULTURAL PRICES -- AS NOTED IN THIS MORNING'S WALL STREET JOURNAL, COMMODITY PRICES ARE STILL 30 PERCENT BELOW THEIR 1980 LEVELS, AND FEW OBSERVERS BELIEVE CONTINUED PRICE RISES ARE IN THE CARDS.

LOOKING AT LONGER TERM TRENDS, MINERAL MARKETS HAVE BEEN HIT ESPECIALLY HARD, WITH TECHNOLOGICAL ADVANCES PROVIDING A GROWING ARRAY OF SUBSTITUTES FOR RAW MATERIALS, PARTICULARLY COPPER, IRON, BAUXITE, AND TIN. AS ONE EXAMPLE, COPPER WIRE IS BEING REPLACED BY FIBER OPTICS, LINE-OF-SIGHT MICROWAVE SYSTEMS, AND SATELLITE COMMUNICATION NETWORKS. ALTHOUGH THE

DEVELOPMENT COSTS OF THESE NEW SYSTEMS HAVE BEEN HIGH, THE ADDITIONAL COST PER COMMUNICATION CHANNEL IS NEGLIGIBLE. SIMILAR TRENDS ARE OCCURRING IN THE TIN AND IRON MARKETS AS LIGHTER-WEIGHT, LOWER-COST SUBSTITUTES ARE CREATED. THESE INCLUDE HIGH-STRENGTH PAPERS, PLASTICS, AND CERAMICS.

IN AGRICULTURE INDIA HAS GONE FROM A MAJOR IMPORTER OF WHEAT TO A NET EXPORTER IN JUST A FEW YEARS, WHILE INDONESIA, ONCE THE WORLD'S LARGEST IMPORTER OF RICE, HAS BECOME SELF-SUFFICIENT. USING A VARIETY OF TECHNOLOGIES RANGING FROM GENETIC ENGINEERING TO IMPROVED SOIL MANAGEMENT, THE AGRICULTURAL SUPERPOWERS -- COUNTRIES SUCH AS THE UNITED STATES, CANADA, AUSTRALIA, BRAZIL, AND ARGENTINA -- ARE PRODUCING EVER GREATER QUANTITIES WHILE THEIR FORMER MARKETS ARE ACHIEVING SELF-SUFFICIENCY. THE EFFECT ON PRICES IS SELF-EVIDENT. AND SOME OF YOU KNOW TOO WELL THE EFFECT ON THE ABILITY OF SOME LESS DEVELOPED COUNTRIES TO SERVICE THEIR DEBT.

THE SECOND TREND THAT I WOULD LIKE TO DISCUSS IS THE INTERNATIONALIZATION OF PRODUCTION. IT CERTAINLY IS NOT A NEW PHENOMENON. FOR DECADES AMERICAN INDUSTRY OPERATED HAND IN HAND WITH SUBSIDIARIES AND AFFILIATES IN WESTERN EUROPE. IN THE PAST FEW YEARS, HOWEVER, THE TREND HAS ACCELERATED AND THE LOCUS HAS SHIFTED TOWARD ASIA AND SELECTED THIRD WORLD COUNTRIES ELSEWHERE. TODAY, IF I BUY A VOLKSWAGEN, I FIND IT WAS MADE IN BRAZIL. MY AMERICAN CAR IS MADE IN MEXICO OUT OF

JAPANESE PARTS, AND MY HONDA IS PUT TOGETHER IN THE UNITED STATES. IF I DECIDE TO BE PATRIOTIC AND BUY AN "AMERICAN-MADE" PERSONAL COMPUTER, I FIND THAT THE MONITOR IS MADE IN KOREA, THE DISK DRIVES ARE MADE IN SINGAPORE, AND THE POWER SUPPLY, THE KEYBOARD, HALF OF THE SEMICONDUCTORS AND THE PRINTER ARE MADE IN JAPAN. LESS THAN A THIRD OF THE TOTAL MANUFACTURING COSTS ARE ATTRIBUTABLE TO DOMESTIC PRODUCTION.

THERE ARE A NUMBER OF REASONS FOR THIS TREND. SOME SMOKESTACK AND ASSEMBLY OPERATIONS HAVE MOVED TO THE MORE ADVANCED COUNTRIES OF THE THIRD WORLD IN SEARCH OF LOWER WAGE RATES AND MORE LENIENT ENVIRONMENTAL AND TAX LAWS. HIGH TECHNOLOGY OPERATIONS ARE BEING INTERNATIONALIZED TO POOL IDEAS, RESEARCH, CAPITAL, FACILITIES, ORGANIZATIONS, AND MARKETS IN A SOMETIMES DESPERATE EFFORT TO STAY AHEAD OF THE TECHNOLOGY CURVE. THE RISKS AND COSTS OF RESEARCH AND DEVELOPMENT AND HIGH-TECH MANUFACTURING HAVE RISEN EXPONENTIALLY IN RECENT YEARS. MEANWHILE, UNSTABLE MARKETS, RAPID TECHNOLOGICAL ADVANCES, AND SHORTENED PRODUCT LIFE CYCLES ARE SQUEEZING THE ABILITY OF FIRMS TO RECOUP THEIR INVESTMENTS. MOREOVER, GOVERNMENTS ARE ERECTING, OR THREATENING TO ERECT, TRADE BARRIERS TO PROTECT DOMESTIC INDUSTRIES AND EMPLOYMENT FROM FOREIGN COMPETITION.

TO COUNTERACT THESE FORCES AND REMAIN COMPETITIVE -- IN WHAT MIGHT BE CALLED A VICTORY OF CAPITALISM OVER NATIONALISM

-- BOTH U.S. AND FOREIGN COMPANIES ARE FORMING ALLIANCES OVERSEAS. THESE ALLIANCES, SOME OF WHICH ARE ACTIVELY ENCOURAGED BY FOREIGN GOVERNMENTS, HAVE CREATED A COMPLEX NETWORK OF EQUITY INVESTMENTS, CONSORTIUMS, JOINT VENTURES, LICENSING, AND AGREEMENTS FOR DISTRIBUTION AND OUTSOURCING.

THE IMPORTANT THING ABOUT THIS TREND IS NOT THAT SOME NATIONS ARE GAINING AN ECONOMIC OR COMMERCIAL ADVANTAGE OVER OTHER NATIONS, BUT RATHER THAT INDUSTRY IS SLOWLY BEING DECOUPLED FROM NATIONALITY.

THE THIRD TREND THAT I WOULD LIKE TO DISCUSS IS THE GLOBALIZATION OF FINANCIAL MARKETS. THIS IS A SUBJECT THAT HAS BEEN ON ALL OF OUR MINDS A GREAT DEAL SINCE BLACK MONDAY -- A TRILLION DOLLAR LOSS IN SHAREHOLDER WEALTH WORLDWIDE DOES TEND TO CONCENTRATE THE MIND. WHILE YOU, INDIVIDUALLY AND COLLECTIVELY, I HOPE ARE FAR MORE KNOWLEDGEABLE AND EXPERIENCED IN THIS AREA THAN I AM, LET ME OFFER SOME VIEWS FROM A DIFFERENT PERSPECTIVE.

SINCE THE 1970S, WE HAVE SEEN AN UNPRECEDENTED RESTRUCTURING OF FINANCIAL MARKETS: TRADITIONAL DISTINCTIONS HAVE BEEN BLURRED BETWEEN DOMESTIC AND INTERNATIONAL MARKETS, BETWEEN DIFFERENT TYPES OF FINANCIAL TRANSACTIONS, AND BETWEEN WHO IS A MARKET PARTICIPANT AND WHO IS NOT. AT THE SAME TIME, THERE HAS BEEN AN EXPLOSIVE INCREASE IN THE SPEED, SIZE, AND

SCOPE OF INTERNATIONAL MONEY TRANSACTIONS. AS A RESULT, INTERNATIONAL FINANCIAL MARKETS HAVE BECOME A CONNECTIVE MEDIUM THAT LINKS POLITICAL AND ECONOMIC PHENOMENA WORLDWIDE.

THE GLOBALIZATION OF FINANCIAL MARKETS APPEARS TO HAVE BEEN THE RESULT OF THE CONFLUENCE OF THREE FACTORS.

-- FIRST, THE OIL SHOCKS OF THE 1970S ENABLED THE CAPITAL MARKETS TO RECYCLE BILLIONS OF PETRODOLLARS OUT OF THE PERSIAN GULF, THROUGH WESTERN MONEY CENTERS, TO THIRD WORLD BORROWERS. MORE RECENTLY, THE JAPANESE HAVE EXPORTED A LARGE SHARE OF THEIR CAPITAL SURPLUS TO THE UNITED STATES.

-- SECOND, THE RAPID ADVANCES IN COMPUTER AND TELECOMMUNICATION TECHNOLOGIES HAVE ENABLED FINANCIAL TRADERS TO INTEGRATE AND ACCELERATE INTERNATIONAL TRANSACTIONS.

-- FINALLY, A WAVE OF FINANCIAL DEREGULATION HAS SWEEPED THROUGH THE WESTERN MONEY CENTERS, BRINGING WITH IT GREATER COMPETITIVE PRESSURES THAT HAVE LED TO WIDESPREAD MARKET INNOVATIONS.

FINANCIAL INTEGRATION HAS NOT ONLY BEEN ACCELERATING -- IT HAS OUTSTRIPPED ANY CORRESPONDING POLITICAL INTEGRATION OR

ATTEMPTS TO COORDINATE ECONOMIC POLICY. LET ME GIVE YOU A FEW STATISTICS: ELECTRONIC FINANCIAL COMMUNICATION NETWORKS NOW HANDLE MORE THAN \$1 TRILLION PER DAY; INTERBANK DEPOSITS ARE APPROACHING \$2 TRILLION, THREE TIMES THE 1981 LEVEL; AND INTERNATIONAL BANK FINANCING SOARED 80 PERCENT IN TWO YEARS. THE NUMBER OF INTERNATIONAL BANKS IS NOW IN THE HUNDREDS, UP FROM JUST A HANDFUL IN THE 1970S; OFFSHORE BANKS HAVE MULTIPLIED EACH YEAR FOR THE LAST FEW YEARS; AND THE VOLUME OF EUROMARKET TRANSACTIONS HAS PROBABLY MORE THAN TRIPLED SINCE THE 1970S. FINALLY, NEW FINANCIAL INSTRUMENTS ARE APPEARING ON THE MARKETS FASTER THAN EITHER TRADERS OR REGULATORS CAN FULLY UNDERSTAND THEM.

IF WE PUT THESE THREE TRENDS TOGETHER, WHAT DO WE HAVE? FIRST, WE MUST BE MODEST AND ADMIT THAT WE CANNOT SEE WITH CERTAINTY HOW THESE TRENDS WILL PLAY OUT EVEN IN ECONOMICS, MUCH LESS IN POLITICS AND SOCIETY. NO MATTER HOW PRESCIENT WE ARE, THERE WILL BE MAJOR SURPRISES. CLEARLY THOUGH, WE HAVE A MAJOR STRUCTURAL CHANGE IN THE WORLD ECONOMY, A TRANSFORMATION THAT FUTURE GENERATIONS MAY SEE AS RIVALING THE INDUSTRIAL REVOLUTION.

AS CURRENT TRENDS PLAY OUT, THE FOLLOWING MAY HAPPEN:

-- THE AGRICULTURAL SECTORS OF EUROPE AND JAPAN, NOW SUBSIDIZED, MAY BECOME SO EXPENSIVE TO MAINTAIN THAT

THEY WILL EVENTUALLY BE ABANDONED, LEADING TO A MORE EFFICIENT WORLD AGRICULTURAL SYSTEM. THIS WILL BENEFIT CONSUMERS WORLDWIDE AND BENEFIT FARMERS IN COUNTRIES SUCH AS THE UNITED STATES, CANADA, ARGENTINA, BRAZIL AND AUSTRALIA.

- AS MORE INDUSTRY SHIFTS TO THE NICS AND THE DEVELOPED COUNTRIES MOVE INTO HIGH TECHNOLOGY INDUSTRY AND SERVICES, THESE COULD BE INCREASED PROSPERITY IN BOTH THE DEVELOPED COUNTRIES AND THE NICS. THIS ALSO MAY RESULT IN A LOSS OF INDUSTRIAL SELF-SUFFICIENCY IN THE DEVELOPED COUNTRIES, A LOSS THAT COULD BE CRUCIAL IN TIME OF WAR OR EVEN HIGH TENSION.
- THE DENATIONALIZATION OF HIGH TECHNOLOGY INDUSTRY MAY MAKE IT DIFFICULT TO MOBILIZE IN TIME OF WAR. AND THIS TREND WILL MAKE IT EVEN MORE DIFFICULT TO PROTECT SECURITY-RELATED TECHNOLOGY.

WHAT ELSE MIGHT WE SEE?

- THE SOURCE OF CONFLICTS MAY CHANGE. NATURAL RESOURCES, WITH THE POSSIBLE EXCEPTIONS OF WATER AND OIL, MAY CEASE TO BE A CAUSE OF WAR. SEA ROUTES AND GEOGRAPHIC CHOKEPOINTS MAY BECOME LESS IMPORTANT IN WORLD POLITICS.

- AS NATIONS BECOME INTERDEPENDENT, A PURELY DOMESTIC ECONOMIC POLICY MAY BECOME IMPOSSIBLE. UNCONTROLLABLE CAPITAL FLOWS HAVE THE POTENTIAL TO SWAMP DOMESTIC MONETARY, FISCAL, AND TRADE POLICIES.

- AND DENATIONALIZED CAPITAL AND DENATIONALIZED INDUSTRY MAY CREATE A CLASS OF DENATIONALIZED CITIZENS, WITH MORE LOYALTY TO THE INTERNATIONAL ECONOMIC SYSTEM THAN TO ANY NATIONAL STATE. THESE INTERNATIONALISTS COULD TURN OUT TO BE SAINTS OR ROGUES OR BOTH.

THE RAPID GLOBAL MIGRATION OF INDUSTRY CREATES PROBLEMS AND OPPORTUNITIES. THOSE COUNTRIES WITH FAVORABLE ENVIRONMENTS FOR DEVELOPMENT SUCH AS THE ASIAN NICS WILL RECEIVE A DISPROPORTIONATE SHARE OF THE BENEFITS. OTHERS WHICH HOLD TO STATE-DOMINATED POLICIES WILL BE LEFT FURTHER BEHIND. HENCE THE SPLIT IN PERFORMANCE BETWEEN THIRD WORLD COUNTRIES LIKELY WILL WIDEN.

THE SAME IS TRUE FOR THE IMPACT OF THESE TRENDS ON THE SOVIET UNION AND ITS ALLIES. THE SOVIET UNION AND OTHER COMMUNIST COUNTRIES ARE BEING HARD HIT BY TECHNOLOGICAL CHANGE. THE USSR SEEMS DESTINED TO FALL FURTHER AND FURTHER BEHIND AS NEW TECHNOLOGIES TRANSFORM THE WESTERN WORLD. NO AMOUNT OF STATE-OF-THE-ART TECHNOLOGY, EITHER DEVELOPED AT HOME OR BOUGHT OR STOLEN FROM THE WEST, WILL CHANGE THAT FACT. AND

RUSSIA WILL DRAG THE REST OF THE COMMUNIST WORLD DOWN WITH IT. MORE TALENTED SOCIETIES, SUCH AS EAST GERMANY, HUNGARY, AND CZECHOSLOVAKIA, WOULD PROBABLY BE ABLE TO MAKE A NICHE FOR THEMSELVES IN THE NEW WORLD IF LEFT ALONE. THE SOVIETS, HOWEVER, WILL HAVE AN EVEN GREATER NEED THAN BEFORE FOR THEIR RESOURCES AND WILL NOT BE ABLE TO LEAVE THEM ALONE.

THE SOVIET UNION WILL UNDOUBTEDLY EXPERIMENT WITH VARIOUS TOP-DOWN REFORMS, INCLUDING AT TIMES INCREASED RELIANCE ON MARKET FORCES -- AS WE ARE SEEING GORBACHEV ATTEMPTING TO IMPLEMENT NOW. SUCH REFORMS MAY INCREASE THE VIGOR OF ALREADY EXISTING SECOND ECONOMIES AND RAISE THE STATUS OF PRIVATE ENTREPRENEURS. ALTHOUGH IN FAVORABLE CASES THESE EFFORTS MAY BENEFIT LIVING STANDARDS AND REDUCE POLITICAL DISCONTENT, THEY WILL DO NOTHING TO NARROW THE WIDENING GAP BETWEEN THE COMMUNIST NATIONS AND THE POST-INDUSTRIAL NATIONS OF THE WEST.

ACCORDINGLY, THE STATUS OF THE COMMUNIST NATIONS WILL CONTINUE TO FALL. THE CONTINUING FAILURES OF THEIR ECONOMIC SYSTEMS WILL BE RECOGNIZED FAR AND WIDE, AS EASTERN BLOC LIVING STANDARDS SLIP BEHIND THOSE OF THE MORE PROSPEROUS LDCs. MARXIST ECONOMICS AND SOCIOLOGY WILL SLOWLY FALL TO THE STATUS OF FLAT-EARTH GEOGRAPHY. ON THE OTHER HAND, THE MARXIST POLICE STATE WILL ACHIEVE NEW POPULARITY AS A MODEL FOR SOME SORELY BESET GOVERNMENTS, AND COUNTRIES THAT WOULD NEVER CONSIDER IMPORTING A SOVIET TRUCK OR LATHE WILL EAGERLY IMPORT EAST GERMAN INTELLIGENCE EXPERTS AND CUBAN PRESIDENTIAL GUARDS.

THESE SPECULATIONS ARE ONLY A FEW OF THE POSSIBLE RESULTS OF THE ONGOING STRUCTURAL CHANGE IN THE WORLD ECONOMY. I'M SURE YOU CAN THINK OF OTHERS.

THE IMPORTANT THING IS THAT ALL OF US TRY TO UNDERSTAND BETTER THE LARGE SCALE ECONOMIC CHANGES GOING ON AROUND US, ESPECIALLY THOSE STRUCTURAL CHANGES WITH THE POTENTIAL TO ALTER SIGNIFICANTLY THE WORLD IN WHICH WE AND OUR CHILDREN WILL LIVE. OUR ABILITY IN GOVERNMENT AND IN THE PRIVATE SECTOR TO UNDERSTAND AND TO PROJECT AHEAD THE ECONOMIC, POLITICAL AND SOCIAL CONSEQUENCES OF STRUCTURAL CHANGE WILL BE VITAL TO OUR NATIONAL SECURITY AND TO OUR PROSPERITY. THE FUTURE, AS ALWAYS, IS A REALM OF OPPORTUNITY FOR THE FAR-SIGHTED, THE AGILE, THE PREPARED AND THE BOLD.

THANK YOU.

AMERICAN ELECTRONICS ASSOCIATION TEXAS COUNCIL
16 FEBRUARY 1988

TECHNOLOGY TRANSFER
BY ROBERT M. GATES
DEPUTY DIRECTOR OF CENTRAL INTELLIGENCE

I WOULD LIKE TO TALK TODAY ABOUT TECHNOLOGY TRANSFER, SPECIFICALLY, TECHNOLOGY TRANSFER TO THE SOVIET UNION AND OTHER WARSAW PACT STATES. WHILE THE UNITED STATES AND ITS ALLIES HAVE SOUGHT TO PREVENT THE EXPORT OF MILITARILY USEFUL EQUIPMENT AND TECHNOLOGY TO THE WARSAW PACT FOR SOME 40 YEARS, TECHNOLOGY TRANSFER CONTINUES TO BE THE SUBJECT OF DEBATE AND DISHARMONY HERE AT HOME AND ABROAD. THE SUCCESS THE SOVIETS HAVE ENJOYED IN USING OUR KNOW-HOW TO DEVELOP AND ENHANCE THEIR OWN SYSTEMS POSES A GENUINE THREAT TO OUR NATIONAL SECURITY.

NOW, TECHNOLOGY TRANSFER IS NOTHING NEW TO RUSSIA. PERHAPS THE EARLIEST EXAMPLE OF MASSIVE TECHNOLOGY TRANSFER TO STRENGTHEN RUSSIA MILITARILY WAS DURING THE REIGN OF PETER THE GREAT AT THE END OF THE SEVENTEENTH CENTURY. PETER HIMSELF TRAVELED TO THE WEST -- TO SWEDEN, GERMANY, HOLLAND AND ENGLAND -- WHERE HE DREW THE PLANS OF WESTERN FORTIFICATIONS; WORKED IN A SHIPYARD; BOUGHT TWENTY FACTORIES, HIRED SOME 800 TECHNICAL

SPECIALISTS; AND TOOK HOME REMARKABLE KNOWLEDGE AND EXPERTISE ON MILITARY RELATED TECHNOLOGIES. THIS HAS BEEN REPEATED TIME AND AGAIN IN THE FOLLOWING THREE CENTURIES, RIGHT TO THE PRESENT DAY.

FROM THE SCOPE AND VOLUME OF TRANSACTIONS WE HAVE OBSERVED, IT IS CLEAR THAT THE SOVIET APPETITE FOR WESTERN TECHNOLOGY IS ENORMOUS. FOR EXAMPLE:

- TO IMPROVE DESIGNS OF FUTURE WEAPONS SYSTEMS AND TO HELP DEVELOP COUNTERMEASURES FOR WESTERN SYSTEMS, THE SOVIETS COLLECTED 6,000 - 10,000 HARDWARE ITEMS AND 100,000 DOCUMENTS EACH YEAR IN THE LATE 1970S AND EARLY 1980S.
- TO BOLSTER THE ACTUAL PRODUCTION OF WEAPONS SYSTEMS, THE SOVIETS ACQUIRED -- ILLEGALLY -- HUNDREDS AND IN SOME CASES THOUSANDS OF MACHINE TOOLS, COMPUTER, AND MICROELECTRONIC MANUFACTURING EQUIPMENT.
- TO ENHANCE THEIR OWN EQUIPMENT AND IN SOME CASES WEAPON SYSTEMS, THEY ILLEGALLY ACQUIRE AT LEAST 50 MILLION INTEGRATED CIRCUITS EACH YEAR.

IT IS IMPORTANT TO NOTE THAT ABOUT 60 PERCENT OF THE DOCUMENTS AND HARDWARE ACQUISITIONS CONSIDERED TO BE THE MOST

SIGNIFICANT TO THE SOVIETS ARE OF US ORIGIN. THESE ACQUISITIONS, HOWEVER, ARE NOT NECESSARILY COLLECTED IN THE UNITED STATES.

THE BENEFITS OF WESTERN TECHNOLOGY FOR THE WARSAW PACT HAVE BEEN TREMENDOUS.

- IN THE EARLY 1980S, FOR EXAMPLE, MORE THAN 5,000 MILITARY RELATED PROJECTS IN THE SOVIET UNION BENEFITED FROM WESTERN HARDWARE AND TECHNICAL DOCUMENTS EACH YEAR. OVER HALF OF THESE PROJECTS WERE IN THE ELECTRONICS AND THE ARMOR AND ELECTRO-OPTICS INDUSTRIES.
- IN TERMS OF SPECIFIC WEAPONS SYSTEMS, WE HAVE SEEN THE IMPACT OF PURLOINED WESTERN TECHNOLOGY IN SOVIET RADARS, GUIDANCE SYSTEMS, CRUISE MISSILES, ANTI-SUBMARINE WEAPONS, LASER-GUIDED ARTILLERY SHELLS, AND ANTI-TANK MISSILES, TO NAME ONLY A FEW.

THE SOVIET ACQUISITION EFFORT CONSISTS OF THREE DISTINCT, BUT SOMEWHAT OVERLAPPING CHANNELS. THE FIRST WE REFER TO AS THE OPEN SOURCE CHANNEL. WE ESTIMATE THAT EVERY YEAR NEARLY HALF A MILLION UNCLASSIFIED DOCUMENTS ON TECHNICAL SUBJECTS ARE ACQUIRED BY THE SOVIETS. THIS CHANNEL IS THE LEAST IMPORTANT IN TERMS OF MILITARY CRITICALITY, BUT IT IS USED TO SUPPORT AND IMPROVE THE TARGETING OF THE OTHER CHANNELS. OTHER THAN A MORE

THOROUGH REVIEW OF UNCLASSIFIED GOVERNMENT PUBLICATIONS, THERE IS LITTLE WE CAN DO TO PREVENT THE LOSS OF KNOW-HOW THROUGH THIS CHANNEL. THIS IS SIMPLY THE COST OF DOING BUSINESS IN A FREE SOCIETY.

IN TERMS OF DIRECT IMPACT ON STRATEGIC ISSUES, THE SECOND AND THIRD CHANNELS ARE MORE IMPORTANT. THE SECOND CHANNEL, WHICH FOCUSES ON THE DESIGN PHASE OF WEAPONS, IS RUN BY THE USSR MILITARY INDUSTRIAL COMMISSION AND SUPPORTS THE DEFENSE INDUSTRIAL MINISTRIES. THIS ACQUISITION CHANNEL OR APPROACH TARGETS SEEK ONE-OF-A-KIND MILITARY AND DUAL-USE HARDWARE, BLUEPRINTS, PRODUCT SAMPLES, AND TEST EQUIPMENT TO IMPROVE THE TECHNICAL LEVELS AND PERFORMANCE OF SOVIET WEAPONS AND MILITARY EQUIPMENT. THIS PROGRAM, ON WHICH THE SOVIETS SPEND ABOUT \$1.4 BILLION EACH YEAR, INVOLVES ESPIONAGE BY HOSTILE INTELLIGENCE OFFICERS -- PRIMARILY KGB -- OVERT COLLECTION BY BLOC OFFICIALS, ACQUISITION BY SCIENTIFIC EXCHANGE PROGRAM PARTICIPANTS, AND ILLEGAL TRADE-RELATED ACTIVITY. IN THE LATE 1970S AND EARLY 1980S, THIS PROGRAM REDIRECTED SOVIET TECHNICAL APPROACHES IN ABOUT 100 PROJECTS EACH YEAR FOR ONGOING WEAPONS SYSTEMS AND KEY MILITARY EQUIPMENT. IT ALSO INITIATED SEVERAL HUNDRED NEW RESEARCH PROJECTS ANNUALLY ON TOPICS THAT HAD NOT BEEN UNDER CONSIDERATION. THE PROGRAM RAISED THE TECHNICAL LEVEL OF SEVERAL THOUSAND DEVELOPMENTAL PROJECTS EACH YEAR. MOREOVER, IT ALLOWED ELIMINATION OR SHORTENED DEVELOPMENTAL PHASES OF MORE THAN A THOUSAND MILITARY RESEARCH PROJECTS EACH YEAR.

THE THIRD CHANNEL OR PROGRAM, FOCUSES NOT ON ACQUIRING TECHNOLOGY RELEVANT TO THE DESIGN PHASE BUT RATHER ON PRODUCTION ITSELF. THIS PROGRAM INVOLVES THE SOVIET MINISTRY OF FOREIGN TRADE AND SOVIET INTELLIGENCE SERVICES. THEY MANAGE AN ELABORATE TRADE DIVERSION PROGRAM TO OBTAIN -- LEGALLY AND ILLEGALLY -- DUAL-USE MANUFACTURING AND TEST EQUIPMENT FOR DIRECT USE IN SOVIET PRODUCTION LINES. THIS PROGRAM SEEKS EXPORT CONTROLLED COMPUTERS, MICROELECTRONICS, MACHINE TOOLS, ROBOTICS, AND OTHER EQUIPMENT TO INCREASE THE OUTPUT OF SOVIET DEFENSE-RELATED INDUSTRIES. THE SOVIETS USE WESTERN BUSINESSMEN AND TRADE BROKERS, DUMMY FIRMS, DECEPTIVE EQUIPMENT DESCRIPTIONS, FALSE LICENSES, AND OTHER METHODS TO ACQUIRE THIS EQUIPMENT.

THE SOVIET UNION HAS MADE GREAT STRIDES IN MICROELECTRONICS OVER THE LAST FEW YEARS BY RELYING ON THESE SCHEMES. THIS SOVIET PROGRESS HAS REDUCED THE OVERALL WESTERN LEAD IN MICROELECTRONICS FROM 10-12 YEARS IN THE MID-1970S TO 4 TO 6 YEARS TODAY.

AGAIN, IT IS IMPORTANT TO KEEP IN MIND TWO POINTS ABOUT THE SECOND AND THIRD CHANNELS I HAVE DESCRIBED:

-- FIRST, THE MILITARY INDUSTRIAL COMMISSION PROGRAM HAS ITS BIGGEST IMPACT IN THE DESIGN STAGE OF A SOVIET

WEAPON, WHILE THE TRADE DIVERSION EFFORT HAS ITS IMPACT IN THE PRODUCTION/DEPLOYMENT STAGES.

- SECOND, BECAUSE OF WHAT THEY COLLECT AND WHO COLLECTS IT, THE BEST DEFENSE AGAINST THE MILITARY INDUSTRIAL COMMISSION PROGRAM IS GOOD COUNTERINTELLIGENCE AND GOOD INDUSTRIAL SECURITY. THE BEST DEFENSE AGAINST THE TRADE DIVERSION PROGRAM IS EXPORT ENFORCEMENT.

I'D LIKE TO TURN NOW TO THE AMERICAN INTELLIGENCE COMMUNITY'S ROLE IN STEMMING THE FLOW OF MILITARILY-USEFUL TECHNOLOGY TO THE SOVIETS.

OUR PRIMARY ROLE HAS BEEN AS COLLECTORS AND ANALYSTS OF INFORMATION. TWICE IN THE PAST FEW YEARS WE HAVE MADE A LARGE VOLUME OF FACTS OPENLY AVAILABLE ABOUT THE SOVIET EFFORT TO ACQUIRE TECHNOLOGY, AND WE HAVE PROVIDED ANALYTICAL CONCLUSIONS ABOUT THE IMPACT OF THIS EFFORT ON THE EAST-WEST STRATEGIC BALANCE. SOME OF OUR ANALYSIS HAS MADE PEOPLE ANGRY, SOMETIMES AT US. FOR EXAMPLE:

- OUR DISCOVERY AND ANALYSIS OF THE MORE EGREGIOUS TECH TRANSFER CASES -- INCLUDING A RECENT ONE THAT HELPED THE SOVIETS QUIET THEIR SUBMARINES -- HAS CONTRIBUTED TO THE CONGRESSIONAL DRIVE TO MAKE COMMITTEE ON MULTILATERAL EXPORT CONTROLS (COCOM) A MORE EFFECTIVE ORGANIZATION.

- OUR RESEARCH SHOWING THAT KEY COCOM COUNTRIES LACK THE MEANS AND IN SOME CASES THE WILL TO ENFORCE EXPORT CONTROLS DID NOT MAKE US MANY FRIENDS OVERSEAS.
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YOUR CONTINUED SUPPORT AND COOPERATION IN STEMMING THE FLOW OF CRITICAL TECHNOLOGY TO THE SOVIET UNION AND OTHER WARSAW PACT STATES IS A KEY PART OF OUR EFFORT. THANK YOU.

The Deputy Director of Central Intelligence

Washington, D.C. 20505

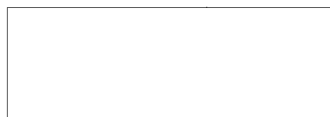
23 February 1988

TO: DDI/TTAC
6C43 Hqs

ATTN: Merle

Attached is a copy of the technology transfer
speech the DDCI gave in Dallas last week.

STAT



O/DDCI

AMERICAN ELECTRONICS ASSOCIATION TEXAS COUNCIL
16 FEBRUARY 1988

TECHNOLOGY TRANSFER
BY ROBERT M. GATES
DEPUTY DIRECTOR OF CENTRAL INTELLIGENCE

I WOULD LIKE TO TALK TODAY ABOUT TECHNOLOGY TRANSFER, SPECIFICALLY, TECHNOLOGY TRANSFER TO THE SOVIET UNION AND OTHER WARSAW PACT STATES. WHILE THE UNITED STATES AND ITS ALLIES HAVE SOUGHT TO PREVENT THE EXPORT OF MILITARILY USEFUL EQUIPMENT AND TECHNOLOGY TO THE WARSAW PACT FOR SOME 40 YEARS, TECHNOLOGY TRANSFER CONTINUES TO BE THE SUBJECT OF DEBATE AND DISHARMONY HERE AT HOME AND ABROAD. THE SUCCESS THE SOVIETS HAVE ENJOYED IN USING OUR KNOW-HOW TO DEVELOP AND ENHANCE THEIR OWN SYSTEMS POSES A GENUINE THREAT TO OUR NATIONAL SECURITY.

NOW, TECHNOLOGY TRANSFER IS NOTHING NEW TO RUSSIA. PERHAPS THE EARLIEST EXAMPLE OF MASSIVE TECHNOLOGY TRANSFER TO STRENGTHEN RUSSIA MILITARILY WAS DURING THE REIGN OF PETER THE GREAT AT THE END OF THE SEVENTEENTH CENTURY. PETER HIMSELF TRAVELED TO THE WEST -- TO SWEDEN, GERMANY, HOLLAND AND ENGLAND -- WHERE HE DREW THE PLANS OF WESTERN FORTIFICATIONS; WORKED IN A SHIPYARD; BOUGHT TWENTY FACTORIES, HIRED SOME 800 TECHNICAL



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SPECIALISTS; AND TOOK HOME REMARKABLE KNOWLEDGE AND EXPERTISE ON MILITARY RELATED TECHNOLOGIES. THIS HAS BEEN REPEATED TIME AND AGAIN IN THE FOLLOWING THREE CENTURIES, RIGHT TO THE PRESENT DAY.

FROM THE SCOPE AND VOLUME OF TRANSACTIONS WE HAVE OBSERVED, IT IS CLEAR THAT THE SOVIET APPETITE FOR WESTERN TECHNOLOGY IS ENORMOUS. FOR EXAMPLE:

- TO IMPROVE DESIGNS OF FUTURE WEAPONS SYSTEMS AND TO HELP DEVELOP COUNTERMEASURES FOR WESTERN SYSTEMS, THE SOVIETS COLLECTED 6,000 - 10,000 HARDWARE ITEMS AND 100,000 DOCUMENTS EACH YEAR IN THE LATE 1970S AND EARLY 1980S.
- TO BOLSTER THE ACTUAL PRODUCTION OF WEAPONS SYSTEMS, THE SOVIETS ACQUIRED -- ILLEGALLY -- HUNDREDS AND IN SOME CASES THOUSANDS OF MACHINE TOOLS, COMPUTER, AND MICROELECTRONIC MANUFACTURING EQUIPMENT.
- TO ENHANCE THEIR OWN EQUIPMENT AND IN SOME CASES WEAPON SYSTEMS, THEY ILLEGALLY ACQUIRE AT LEAST 50 MILLION INTEGRATED CIRCUITS EACH YEAR.

IT IS IMPORTANT TO NOTE THAT ABOUT 60 PERCENT OF THE DOCUMENTS AND HARDWARE ACQUISITIONS CONSIDERED TO BE THE MOST

SIGNIFICANT TO THE SOVIETS ARE OF US ORIGIN. THESE ACQUISITIONS, HOWEVER, ARE NOT NECESSARILY COLLECTED IN THE UNITED STATES.

THE BENEFITS OF WESTERN TECHNOLOGY FOR THE WARSAW PACT HAVE BEEN TREMENDOUS.

- IN THE EARLY 1980S, FOR EXAMPLE, MORE THAN 5,000 MILITARY RELATED PROJECTS IN THE SOVIET UNION BENEFITED FROM WESTERN HARDWARE AND TECHNICAL DOCUMENTS EACH YEAR. OVER HALF OF THESE PROJECTS WERE IN THE ELECTRONICS AND THE ARMOR AND ELECTRO-OPTICS INDUSTRIES.
- IN TERMS OF SPECIFIC WEAPONS SYSTEMS, WE HAVE SEEN THE IMPACT OF PURLOINED WESTERN TECHNOLOGY IN SOVIET RADARS, GUIDANCE SYSTEMS, CRUISE MISSILES, ANTI-SUBMARINE WEAPONS, LASER-GUIDED ARTILLERY SHELLS, AND ANTI-TANK MISSILES, TO NAME ONLY A FEW.

THE SOVIET ACQUISITION EFFORT CONSISTS OF THREE DISTINCT, BUT SOMEWHAT OVERLAPPING CHANNELS. THE FIRST WE REFER TO AS THE OPEN SOURCE CHANNEL. WE ESTIMATE THAT EVERY YEAR NEARLY HALF A MILLION UNCLASSIFIED DOCUMENTS ON TECHNICAL SUBJECTS ARE ACQUIRED BY THE SOVIETS. THIS CHANNEL IS THE LEAST IMPORTANT IN TERMS OF MILITARY CRITICALITY, BUT IT IS USED TO SUPPORT AND IMPROVE THE TARGETING OF THE OTHER CHANNELS. OTHER THAN A MORE

THOROUGH REVIEW OF UNCLASSIFIED GOVERNMENT PUBLICATIONS, THERE IS LITTLE WE CAN DO TO PREVENT THE LOSS OF KNOW-HOW THROUGH THIS CHANNEL. THIS IS SIMPLY THE COST OF DOING BUSINESS IN A FREE SOCIETY.

IN TERMS OF DIRECT IMPACT ON STRATEGIC ISSUES, THE SECOND AND THIRD CHANNELS ARE MORE IMPORTANT. THE SECOND CHANNEL, WHICH FOCUSES ON THE DESIGN PHASE OF WEAPONS, IS RUN BY THE USSR MILITARY INDUSTRIAL COMMISSION AND SUPPORTS THE DEFENSE INDUSTRIAL MINISTRIES. THIS ACQUISITION CHANNEL OR APPROACH TARGETS SEEK ONE-OF-A-KIND MILITARY AND DUAL-USE HARDWARE, BLUEPRINTS, PRODUCT SAMPLES, AND TEST EQUIPMENT TO IMPROVE THE TECHNICAL LEVELS AND PERFORMANCE OF SOVIET WEAPONS AND MILITARY EQUIPMENT. THIS PROGRAM, ON WHICH THE SOVIETS SPEND ABOUT \$1.4 BILLION EACH YEAR, INVOLVES ESPIONAGE BY HOSTILE INTELLIGENCE OFFICERS -- PRIMARILY KGB -- OVERT COLLECTION BY BLOC OFFICIALS, ACQUISITION BY SCIENTIFIC EXCHANGE PROGRAM PARTICIPANTS, AND ILLEGAL TRADE-RELATED ACTIVITY. IN THE LATE 1970S AND EARLY 1980S, THIS PROGRAM REDIRECTED SOVIET TECHNICAL APPROACHES IN ABOUT 100 PROJECTS EACH YEAR FOR ONGOING WEAPONS SYSTEMS AND KEY MILITARY EQUIPMENT. IT ALSO INITIATED SEVERAL HUNDRED NEW RESEARCH PROJECTS ANNUALLY ON TOPICS THAT HAD NOT BEEN UNDER CONSIDERATION. THE PROGRAM RAISED THE TECHNICAL LEVEL OF SEVERAL THOUSAND DEVELOPMENTAL PROJECTS EACH YEAR. MOREOVER, IT ALLOWED ELIMINATION OR SHORTENED DEVELOPMENTAL PHASES OF MORE THAN A THOUSAND MILITARY RESEARCH PROJECTS EACH YEAR.

THE THIRD CHANNEL OR PROGRAM, FOCUSES NOT ON ACQUIRING TECHNOLOGY RELEVANT TO THE DESIGN PHASE BUT RATHER ON PRODUCTION ITSELF. THIS PROGRAM INVOLVES THE SOVIET MINISTRY OF FOREIGN TRADE AND SOVIET INTELLIGENCE SERVICES. THEY MANAGE AN ELABORATE TRADE DIVERSION PROGRAM TO OBTAIN -- LEGALLY AND ILLEGALLY -- DUAL-USE MANUFACTURING AND TEST EQUIPMENT FOR DIRECT USE IN SOVIET PRODUCTION LINES. THIS PROGRAM SEEKS EXPORT CONTROLLED COMPUTERS, MICROELECTRONICS, MACHINE TOOLS, ROBOTICS, AND OTHER EQUIPMENT TO INCREASE THE OUTPUT OF SOVIET DEFENSE-RELATED INDUSTRIES. THE SOVIETS USE WESTERN BUSINESSMEN AND TRADE BROKERS, DUMMY FIRMS, DECEPTIVE EQUIPMENT DESCRIPTIONS, FALSE LICENSES, AND OTHER METHODS TO ACQUIRE THIS EQUIPMENT.

THE SOVIET UNION HAS MADE GREAT STRIDES IN MICROELECTRONICS OVER THE LAST FEW YEARS BY RELYING ON THESE SCHEMES. THIS SOVIET PROGRESS HAS REDUCED THE OVERALL WESTERN LEAD IN MICROELECTRONICS FROM 10-12 YEARS IN THE MID-1970S TO 4 TO 6 YEARS TODAY.

AGAIN, IT IS IMPORTANT TO KEEP IN MIND TWO POINTS ABOUT THE SECOND AND THIRD CHANNELS I HAVE DESCRIBED:

-- FIRST, THE MILITARY INDUSTRIAL COMMISSION PROGRAM HAS ITS BIGGEST IMPACT IN THE DESIGN STAGE OF A SOVIET

WEAPON, WHILE THE TRADE DIVERSION EFFORT HAS ITS IMPACT IN THE PRODUCTION/DEPLOYMENT STAGES.

- SECOND, BECAUSE OF WHAT THEY COLLECT AND WHO COLLECTS IT, THE BEST DEFENSE AGAINST THE MILITARY INDUSTRIAL COMMISSION PROGRAM IS GOOD COUNTERINTELLIGENCE AND GOOD INDUSTRIAL SECURITY. THE BEST DEFENSE AGAINST THE TRADE DIVERSION PROGRAM IS EXPORT ENFORCEMENT.

I'D LIKE TO TURN NOW TO THE AMERICAN INTELLIGENCE COMMUNITY'S ROLE IN STEMMING THE FLOW OF MILITARILY-USEFUL TECHNOLOGY TO THE SOVIETS.

OUR PRIMARY ROLE HAS BEEN AS COLLECTORS AND ANALYSTS OF INFORMATION. TWICE IN THE PAST FEW YEARS WE HAVE MADE A LARGE VOLUME OF FACTS OPENLY AVAILABLE ABOUT THE SOVIET EFFORT TO ACQUIRE TECHNOLOGY, AND WE HAVE PROVIDED ANALYTICAL CONCLUSIONS ABOUT THE IMPACT OF THIS EFFORT ON THE EAST-WEST STRATEGIC BALANCE. SOME OF OUR ANALYSIS HAS MADE PEOPLE ANGRY, SOMETIMES AT US. FOR EXAMPLE:

- OUR DISCOVERY AND ANALYSIS OF THE MORE EGREGIOUS TECH TRANSFER CASES -- INCLUDING A RECENT ONE THAT HELPED THE SOVIETS QUIET THEIR SUBMARINES -- HAS CONTRIBUTED TO THE CONGRESSIONAL DRIVE TO MAKE COMMITTEE ON MULTILATERAL EXPORT CONTROLS (COCOM) A MORE EFFECTIVE ORGANIZATION.

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ROUTING AND RECORD SHEET

SUBJECT: (Optional)

SPEECH - Technology Transfer

FROM:

William M. Baker *WB*
Director, Public Affairs

EXTENSION

NO.

PAO 88-0024

DATE

27 Jan 88

TO: (Officer designation, room number, and building)

DATE

RECEIVED

FORWARDED

OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

1.

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28 JAN 1988

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background
materials**05*DCI
EXEC
REG*B-802-ni*

PAO 88-0024

27 January 1988

Bob:

STAT Here are the proposed remarks on technology transfer our speechwriters prepared for you. They worked from draft remarks and background material supplied by [redacted] chief of the Technology Transfer Assessment Center (TTAC) in the Office of Scientific and Weapons Research. I have attached the background material as well, including the most recent Agency White Paper on the technology transfer issue.

The speech addresses two basic themes: the large-scale, highly successful campaign by the Soviet Union to acquire Western technology; and the role played by the CIA in the debate on technology transfer.

[redacted]

STAT

STAT TTAC believes that a discussion of the Agency's approach would be most appropriate before an audience such as the American Electronics Association.

[redacted]
Bill Baker

Attachments:
As Stated

STAT DCI/PAO/WME [redacted]

Distribution:

Orig. - DDCI

1 - ER

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1 - [redacted] (Chrono)

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